

**REMARKS**

Claims 1-6 stand rejected under 35 U.S.C. § 103 as being unpatentable over JP '574 in view of Uchizaki et al. '193 ("Uchizaki"). Support for the amended claims can be found, for example, on page 5, lines 9-10; page 11, line 22 – page 13, line 10; page 14, line 14 – page 15, line 1; page 22, line 23 – page 23, line 5; and page 13, line 11 – page 14, line 7 of Applicants' specification. Claims 1 and 6 are independent. This rejection is respectfully traversed for the following reasons.

Claims 1 and 6 each embody a semiconductor laser diode array and an object lens which are integrated so that a *relative positional relationship* between said object lens and said semiconductor laser diode array *is fixed*, whereby curvatures and aspheric coefficients of said object lens are defined so that said object lens has a plurality of numerical apertures to be changed *in accordance with switching between said different wavelengths*. In direct contrast, JP '574 discloses an object lens 3 and opening limit means 5 which are *movable* (*see, e.g.*, paragraph [0014] of JP '574) so that the relative positional relationship between the alleged object lens and semiconductor laser diode array is NOT fixed. Indeed, due to this structural distinction from the present invention, JP '674 requires an opening limit means 5 for changing numerical apertures NA of the object lens and does not suggest changing the numerical apertures by switching the wavelength of the irradiation light.

Similarly, Uchizaki discloses an opening limit means as wavelength-selective iris 106 in an optical pickup whose optical system is an infinite type (*see* Fig. 1), and further discloses a semiconductor laser array 111 with an opening limit element as hologram element 112 in an optical pickup whose optical system is an infinite type (*see* Fig. 10). Accordingly, Uchizaki does

not obviate the deficiencies of JP '574 and is merely cumulative with respect to the aforementioned distinctions relative to the present invention.

According to an aspect of the present invention, distances between the respective light emitting portions of the semiconductor laser diode array and the object lens can be substantially the same; therefore, even when divergent rays of the finite optical system enter the object lens, an aberration generated in the object lens can be stabilized. As a result, the numerical apertures can be controlled to be changed in accordance with the switching of the wavelength of the irradiation light, which can enable the laser beam having passed through the object lens to be focused on the recording face of the optical recording medium arbitrarily selected from a plurality of optical recording media different at the height of the recording face (*see, e.g.*, page 4, line 21 - page 5, line 8 of Applicants' specification).

As the distance between the object lens and the semiconductor laser diode array can be fixed according to the present invention, it is made possible to change the plurality of numerical apertures NA that the object lens has in accordance with the switching of the wavelength of the irradiation light, thereby focusing the laser beam on different types of optical disks or the like, where the heights of the recording face are different from each other. In other words, the present invention can have the advantage that the curvatures and aspheric coefficients of the object lens are defined so that the numerical apertures NA of the object lens can be controlled to be changed only by switching the wavelength of the irradiation light; so that in order to change the numerical apertures of the object lens, there is no need to use other elements such as a numerical aperture limit means as required in JP '674 and Uchizaki. JP '574 and Uchizaki are completely silent as to enabling the numerical apertures NA of the object lens to be changed only by switching the wavelength of the irradiation light and in fact teach away from such a construction by use of the

expressly disclosed opening limit means, let alone suggest, or motivate one to conceive of, a construction as recited in claims 1 and 6 in which a semiconductor laser diode array and an object lens are integrated so that a *relative positional relationship* between said object lens and said semiconductor laser diode array *is fixed*.

The Examiner is directed to MPEP § 2143.03 under the section entitled "All Claim Limitations Must Be Taught or Suggested", which sets forth the applicable standard for establishing obviousness under § 103:

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (citing *In re Royka*, 180 USPQ 580 (CCPA 1974)).

In the instant case, the pending rejection does not "establish *prima facie* obviousness of [the] claimed invention" as recited in claims 1 and 6 because the proposed combination fails the "all the claim limitations" standard required under § 103.

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claims 1 and 6 are patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also patentable. In addition, it is respectfully submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination.

Based on the foregoing, it is respectfully submitted that all pending claims are patentable over the cited prior art. Accordingly, it is respectfully requested that the rejection under 35 U.S.C. § 103 be withdrawn.


**CONCLUSION**

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication for which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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